

Appendix table 2-63.

International R&D expenditures and R&D as a percentage of GDP: 1981–98

Year	United States	Japan ^a	Germany ^b	France	United Kingdom	Italy	Canada
Total R&D expenditures in billions of constant 1992 U.S. dollars ^c							
1981	109.5	NA	23.4	16.6	17.3	6.9	5.3
1982	115.2	36.9	24.2	17.7	NA	7.1	5.7
1983	123.1	40.0	24.7	18.3	16.9	7.6	5.8
1984	134.8	43.5	25.5	19.5	NA	8.3	6.3
1985	146.1	48.3	28.3	20.3	18.4	9.6	6.9
1986	149.3	49.0	29.1	20.6	19.3	9.9	7.2
1987	152.0	52.5	31.3	21.5	19.7	10.7	7.2
1988	155.5	56.6	32.4	22.5	20.3	11.4	7.4
1989	158.2	62.0	33.7	23.9	20.9	12.0	7.6
1990	162.4	67.3	34.1	25.4	21.3	12.8	8.0
1991	165.3	68.8	36.6	25.7	19.6	12.4	8.1
1992	165.2	69.2	36.8	26.4	20.6	12.3	8.3
1993	161.2	67.4	35.5	25.8	20.7	11.2	8.8
1994	160.7	66.4	35.5	25.2	20.7	10.8	9.1
1995	170.4	73.6	36.6	25.7	20.1	10.7	9.7
1996	179.4	77.9	36.4	25.4	20.4	11.0	9.9
1997	189.4	80.9	37.6	25.0	20.3	11.9	10.3
1998	201.6	NA	38.6	NA	NA	12.3	10.6
R&D expenditures as a percentage of GDP							
1981	2.32	NA	2.43	1.97	2.37	0.88	1.25
1982	2.49	2.22	2.52	2.06	NA	0.91	1.40
1983	2.56	2.35	2.52	2.11	2.19	0.95	1.37
1984	2.62	2.43	2.51	2.21	NA	1.01	1.41
1985	2.74	2.58	2.72	2.25	2.23	1.13	1.45
1986	2.72	2.55	2.73	2.23	2.25	1.13	1.49
1987	2.69	2.62	2.88	2.27	2.19	1.19	1.44
1988	2.65	2.66	2.86	2.28	2.14	1.22	1.39
1989	2.61	2.77	2.87	2.33	2.15	1.24	1.39
1990	2.65	2.85	2.75	2.41	2.18	1.30	1.47
1991	2.72	2.82	2.61	2.41	2.11	1.24	1.53
1992	2.65	2.76	2.48	2.42	2.13	1.20	1.54
1993	2.52	2.68	2.42	2.45	2.15	1.14	1.60
1994	2.43	2.63	2.32	2.38	2.11	1.06	1.60
1995	2.52	2.77	2.31	2.34	2.02	1.01	1.58
1996	2.57	2.83	2.30	2.32	1.95	1.02	1.60
1997	2.60	2.92	2.31	2.23	1.87	1.08	1.60
1998	2.67	NA	2.33	NA	NA	1.11	1.60

See explanatory notes, if any, and SOURCE at end of table.

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Appendix table 2-63.

International R&D expenditures and R&D as a percentage of GDP: 1981–98

Year	United States	Japan ^a	Germany ^b	France	United Kingdom	Italy	Canada
Total R&D expenditures in billions of constant 1990 units of national currency ^d							
1981	102.5	NA	47.3	104.2	9.9	9,288.60	6.5
1982	107.8	6,867.70	48.6	111.3	NA	9,619.30	7.0
1983	115.2	7,428.90	49.5	114.9	9.6	10,246.30	7.1
1984	126.1	7,982.30	50.7	121.5	NA	11,158.20	7.7
1985	136.8	8,857.70	55.8	126.4	10.4	12,765.80	8.4
1986	139.7	9,008.60	57.4	128.3	10.9	13,208.30	8.8
1987	142.3	9,629.50	61.4	133.5	11.1	14,287.60	8.9
1988	145.6	10,367.40	63.4	139.4	11.4	15,193.50	9.0
1989	148.0	11,331.20	65.9	148.2	11.8	15,929.90	9.2
1990	152.0	12,277.50	66.7	157.2	12.0	17,001.20	9.8
1991	154.7	12,587.50	71.2	157.9	11.4	16,395.80	9.9
1992	154.6	12,446.70	68.9	160.4	11.4	15,933.00	10.2
1993	150.9	12,119.50	66.6	160.6	11.8	14,970.30	10.8
1994	150.4	11,994.40	65.6	159.6	12.0	14,286.00	11.3
1995	159.5	12,780.60	66.1	160.4	11.8	13,969.10	11.4
1996	168.0	13,594.70	66.5	161.5	11.7	14,269.80	11.6
1997	177.2	14,217.60	68.5	159.0	11.6	15,354.90	12.1
1998	188.7	NA	70.8	NA	NA	15,912.50	12.5

NA = not available

^aDue to changes in methodology, data on Japanese R&D in 1996 and later years may not be consistent with data in earlier years.^bGerman data before 1991 are for West Germany only.^cConversions of foreign currencies to U.S. dollars are calculated with purchasing power parity exchange rates. Constant 1992 dollars are based on U.S. GDP implicit price deflators. (See appendix tables 2-1 and 2-2.)^dConstant foreign currencies are based on deflation with each country's GDP implicit price deflator.SOURCES: National Science Foundation, Division of Science Resources Studies (NSF/SRS), *National Patterns of R&D Resources: 1998*, NSF 99-335, by Steven Payson (Arlington, VA: 1999); and Organization for Economic Co-operation and Development, Main Science and Technology Indicators database (Paris: April 1999).

See figures 2-27, 2-28, and 2-30 in Volume I.